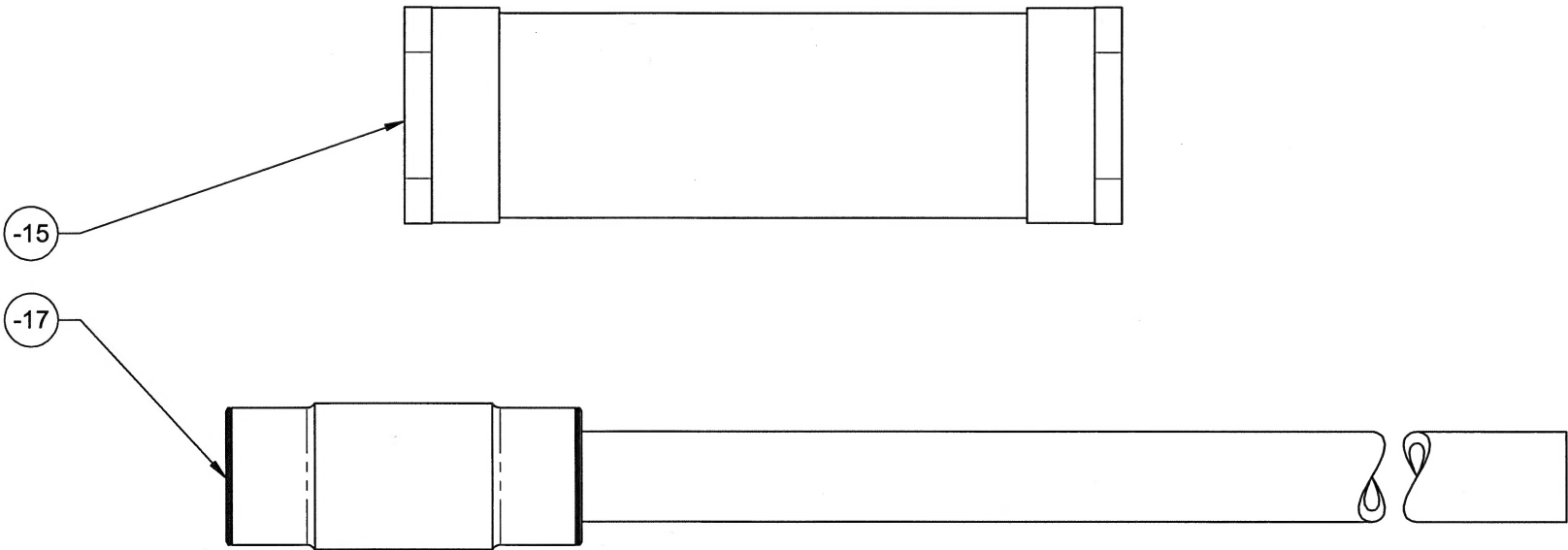


ITEM #	QTY	PART #	PART TITLE
-15	1	RBW7839-2G-15	IGB & TGB OIL DRAIN TOOL QUILL ASSEMBLY
-17	1	RBW7839-2G-17	IGB & TGB OIL DRAIN TOOL HOSE ASSEMBLY



RBW7839-2G IGB & TGB OIL DRAIN TOOL

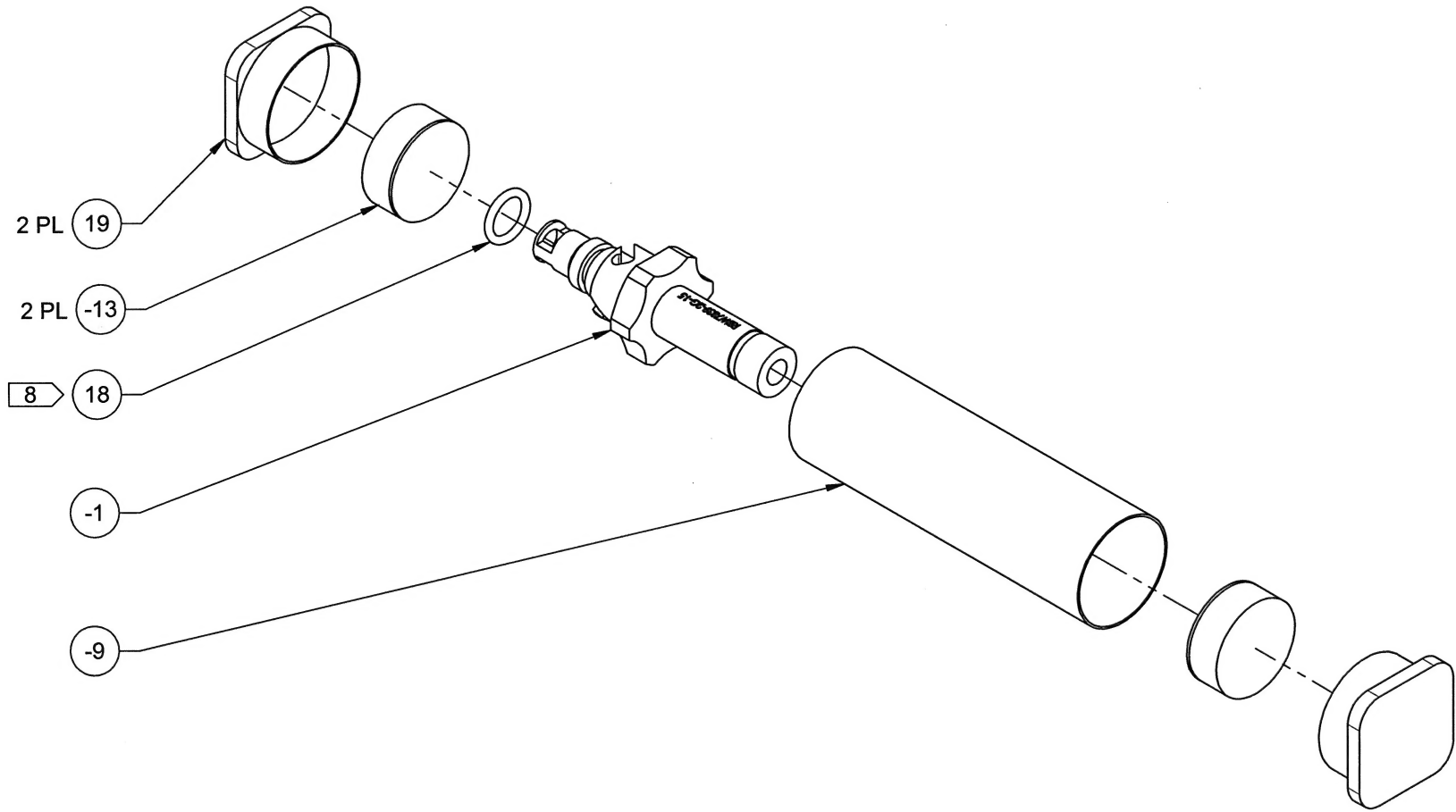
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NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFICATION: N/A
- 7) ASSEMBLE AS SHOWN
- 8) PLACE ITEM -17 COILED INTO A TIGHT FITTING SEALED PLASTIC BAG WITH ITEM -15

H	SEE PREVIOUS REVISION FOR MORE INFORMATION UPDATED DRAWING TEMPLATE ADDED ITEMS -15 & -17	19-583	MBB
REV.	DESCRIPTION	ECN #	BY
DESIGN	MBB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MBB		
CHECKED	KPT	TOOL PART #	REV. H
MFG. APPR.	DP	RBW7839-2G	SHEET 1 OF 6
APPROVED	VP	TITLE	SCALE
DATE	2/27/2019	IGB & TGB OIL DRAIN TOOL	NTS
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ITEM #	QTY	PART #	PART TITLE
-1	1	RBW7839-2G-1	QUILL
-9	1	RBW7839-2G-9	TUBE
-13	2	RBW7839-2G-13	FOAM
18	1	McMaster#9263K174 OR EQUIV.	VITON O-RING 10 mm ID. X 14 mm OD. X 2 mm WD.
19	2	McMaster#2044T67 OR EQUIV.	VINYL END CAP FOR 1.09" ID. SHIPPING TUBE



RBW7839-2G-15 IGB & TGB OIL DRAIN TOOL QUILL ASSEMBLY

NOTES:
1) MATERIAL: N/A
2) HEAT TREAT: N/A
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) IDENTIFICATION: N/A
7) ASSEMBLE AS SHOWN
8) APPLY MOLYKOTE 55 OR EQUIVALENT ON ITEM 18 THEN ASSEMBLE WITH ITEM -1, AND REMOVE EXCESS

DESIGN	MBB	DART AEROSPACE LTD	
DRAWN	MBB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	KPT	TOOL PART #	REV. H
MFG. APPR.	DP	RBW7839-2G	SHEET 2 OF 6
APPROVED		TITLE	SCALE
DATE	2/27/2019	IGB & TGB OIL DRAIN TOOL	NTS
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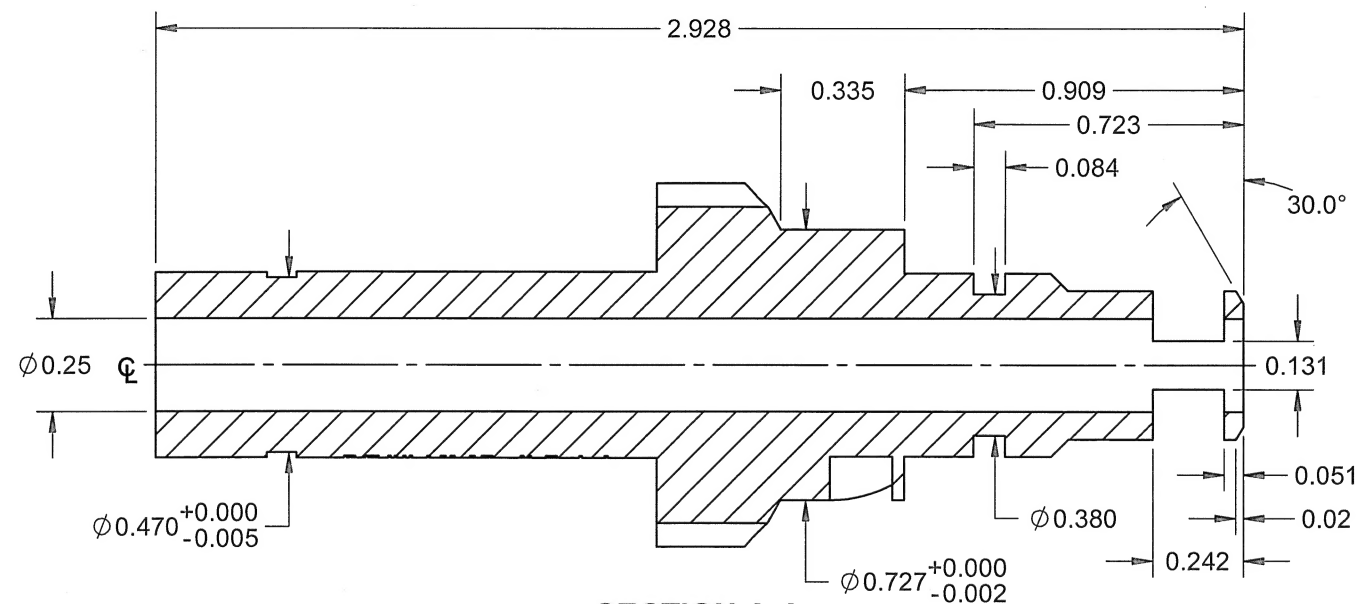
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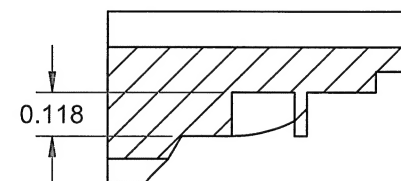
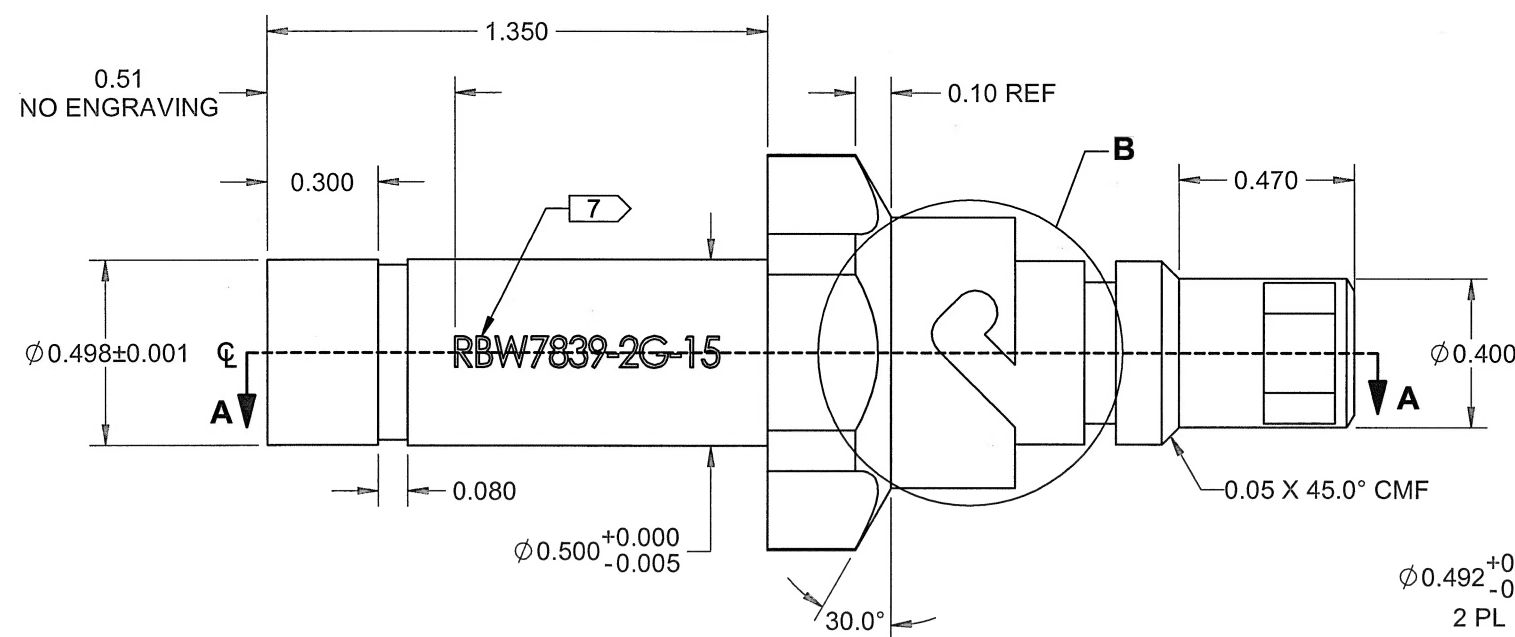
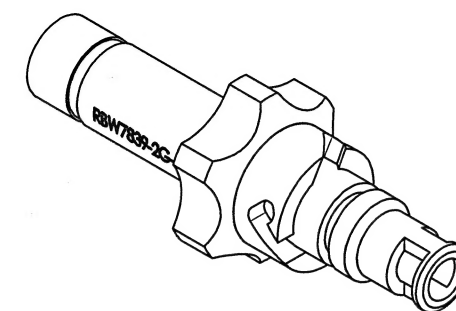
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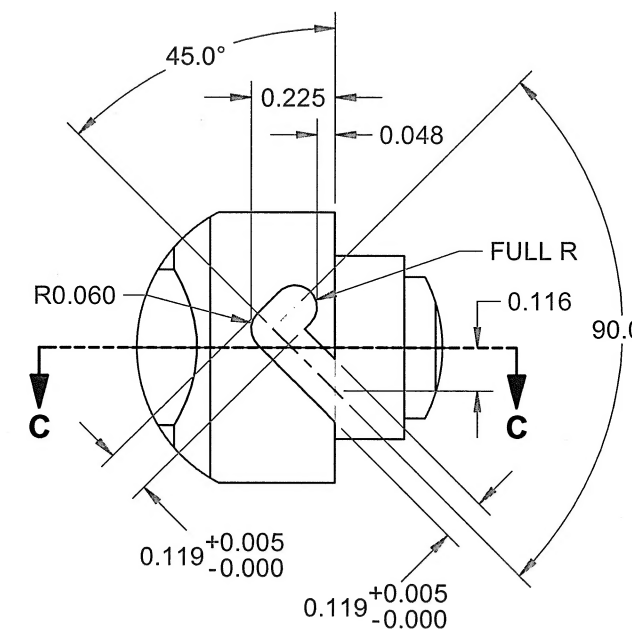
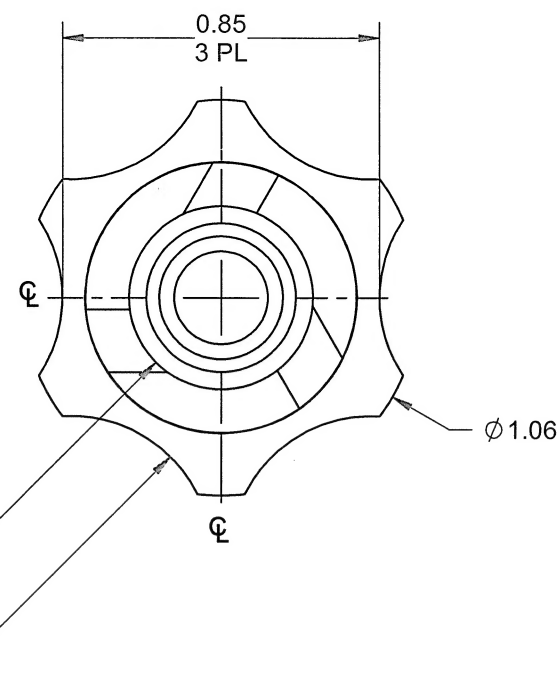
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SECTION A-A



SECTION C-C
TYPICAL

RBW7839-2G-1 QUILL

DETAIL B
3 PL EQUALLY SPACED

NOTES:

- 1) MATERIAL: 6061-T6 / 7075-T6
- 2) HEAT TREAT: N/A
- 3) FINISH: ANODIZE RED PER MIL-A-8625 TYPE 2 CLASS 2
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) REMOVE ALL SHARP EDGES AND BURRS
- 7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK T/N AS SHOWN

DESIGN	MBB	DART AEROSPACE LTD	
DRAWN	MBB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	KPT	TOOL PART #	REV. H
MFG. APPR.	DP	RBW7839-2G	SHEET 3 OF 6
APPROVED		TITLE	SCALE
		IGB & TGB OIL DRAIN TOOL	NTS 
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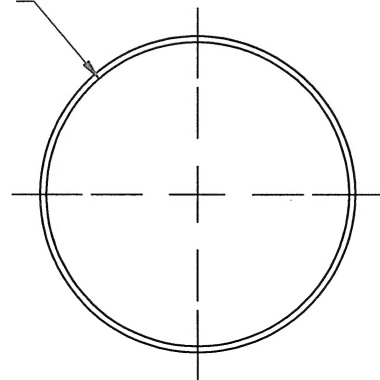
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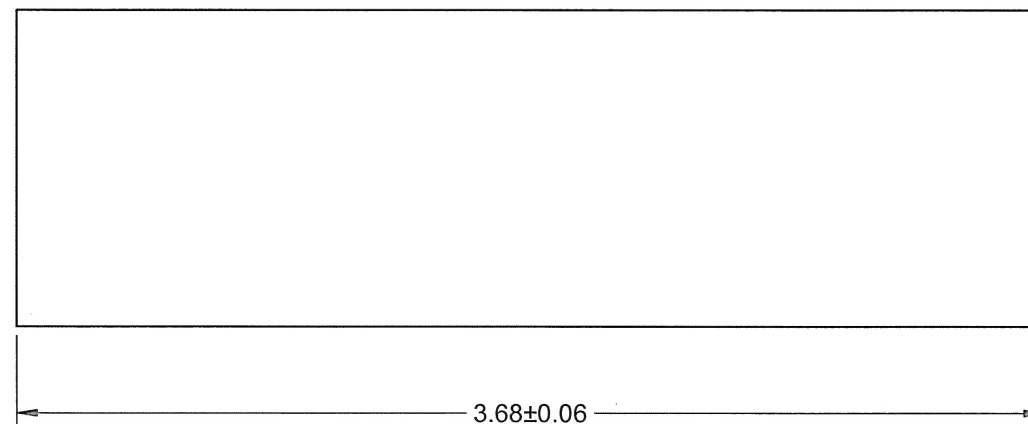
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Ø1.09
REF



RBW7839-2G-9 TUBE



D

C

B

A

- NOTES:
- 1) MATERIAL: McMaster#2044T67 OR EQUIV. (POLYETHYLENE ROUND SHIPPING TUBE 01.09" ID.)
 - 2) HEAT TREAT: N/A
 - 3) FINISH: N/A
 - 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) REMOVE ALL SHARP EDGES AND BURRS
 - 7) IDENTIFICATION: N/A

DESIGN	MBB	DART AEROSPACE LTD	
DRAWN	MBB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	KPT	TOOL PART #	REV. H
MFG. APPR.	DP	RBW7839-2G	SHEET 4 OF 6
APPROVED	VM	TITLE	SCALE
DATE 2/27/2019		IGB & TGB OIL DRAIN TOOL	NTS
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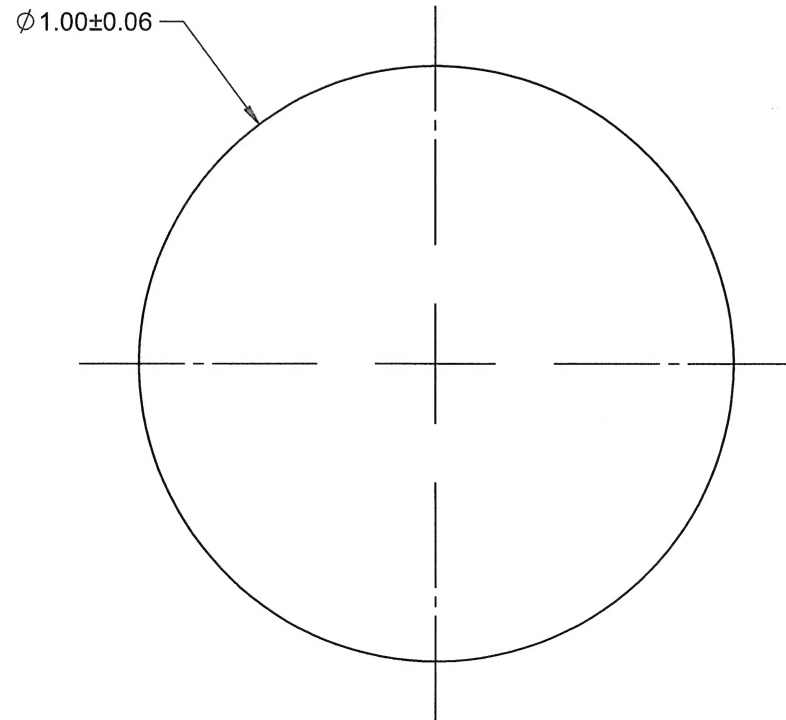
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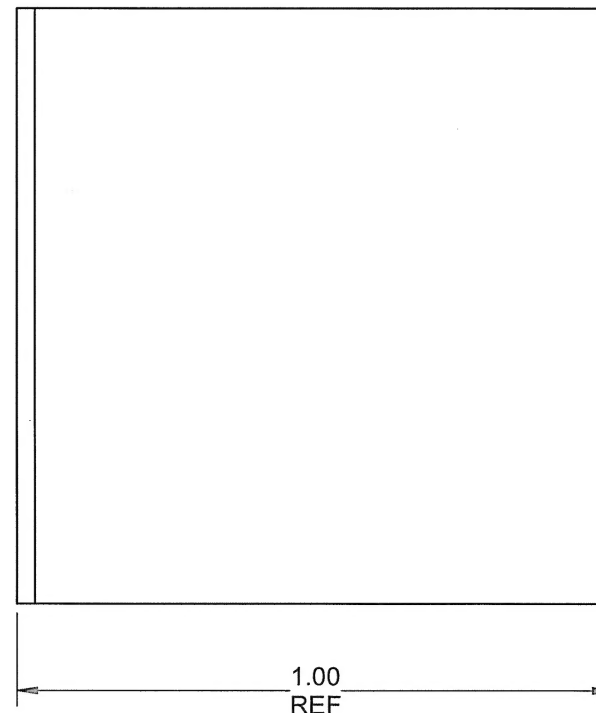
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RBW7839-2G-13 FOAM



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C

B

A

- NOTES:
- 1) MATERIAL: NewPig#PAD210 OR EQUIV. (FOAM POLY-BACKED OIL ABSORBENT 1" THK.)
 - 2) HEAT TREAT: N/A
 - 3) FINISH: N/A
 - 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) IDENTIFICATION: N/A

DESIGN	MBB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MBB		
CHECKED	KPT	TOOL PART #	REV. H
MFG. APPR.	DP	RBW7839-2G	SHEET 5 OF 6
APPROVED	VM	TITLE	SCALE
DATE 2/27/2019		IGB & TGB OIL DRAIN TOOL	NTS
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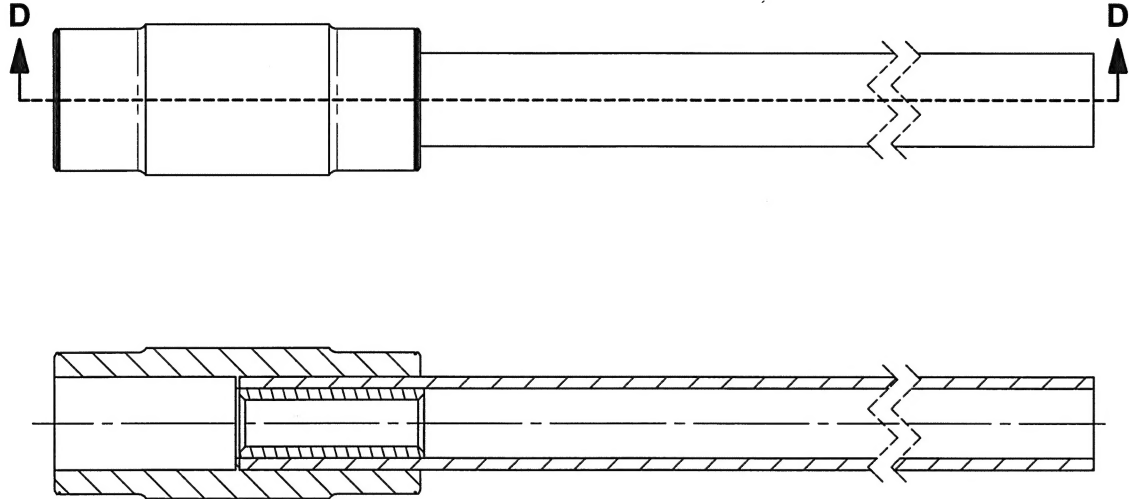
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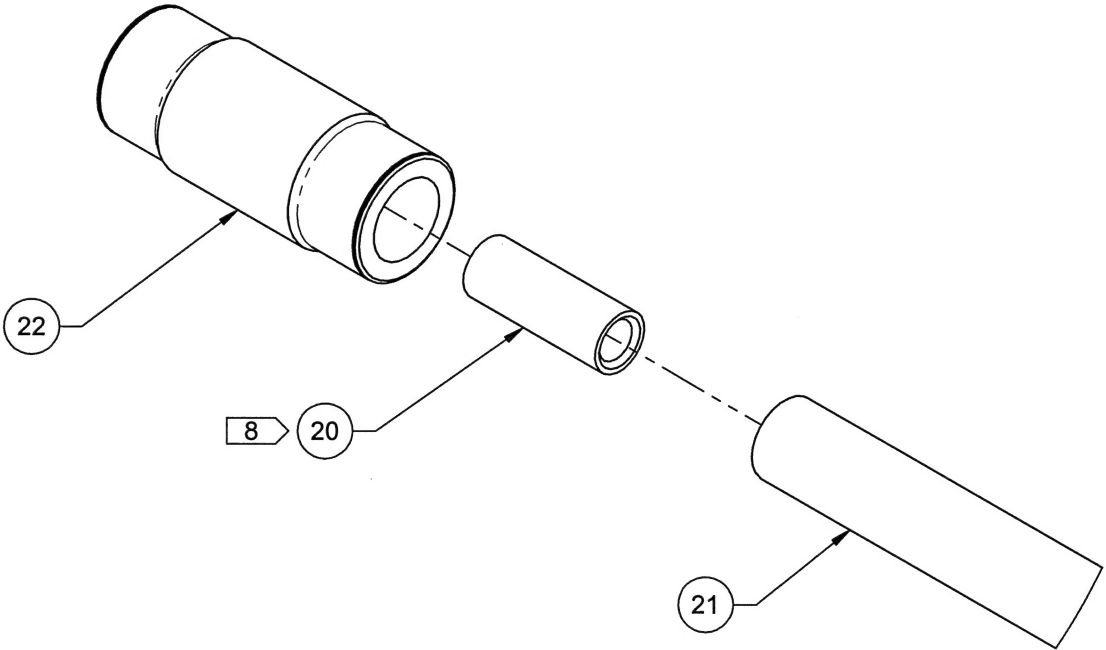
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ITEM #	QTY	PART #	PART TITLE
20	1	DTSP10001	SLEEVE
21	1	Kuri-Tec#K010-0608 OR EQUIV.	CLEAR PVC TUBING 1/2" OD. X 3/8" ID. X 72" LG.
22	1	McMaster#51495K116 OR EQUIV.	NICKEL-PLATED BRASS PUSH-TO-CONNECT 1/2" OD. TUBE FITTING



SECTION D-D



RBW7839-2G-17 IGB & TGB OIL DRAIN TOOL HOSE ASSEMBLY

- NOTES:
- 1) MATERIAL: N/A
 - 2) HEAT TREAT: N/A
 - 3) FINISH: N/A
 - 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) IDENTIFICATION: N/A
 - 7) ASSEMBLE AS SHOWN
 - 8) INSTALL ITEM 20 INTO ONE END OF ITEM 21 UNTIL FLUSH

DESIGN	MBB	DART AEROSPACE LTD	
DRAWN	MBB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	KPT	TOOL PART #	REV. H
MFG. APPR.	DP	RBW7839-2G	SHEET 6 OF 6
APPROVED	VP	TITLE	SCALE
DATE	2/27/2019	IGB & TGB OIL DRAIN TOOL	NTS
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